

(12) PATENT APPLICATION
(19) AUSTRALIAN PATENT OFFICE

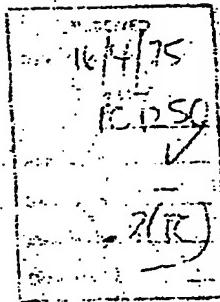
(11) Application No. AU 197581394 A1

(51) International Patent Classification(s)
A01C 001/04

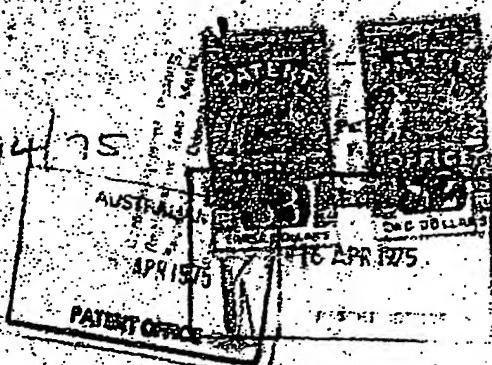
(21) Application No: 197581394

Cover layer finer textured thin latex layer
COMPRESSED STRAW
ORGANIC INORGANIC ORGANIC PARTICULATE
or FIBROUS MATERIAL COCONUT FIBERS, P. MOSS
WOOD SHAVINGS, P. MOSS
LATEX SEEDS IN OR ON BACK LAYER

coconut fiber dust, sawdust liner texture 2-3 mm
5-10 mm (straw) water seeds bonded within or on
organic fibrous or other organic particulate material, flexible (coconut fibers, peat moss, wood shavings)
material m³



61394/75



Form 1

COMMONWEALTH OF AUSTRALIA
Patents Act 1952-1973

APPLICATION FOR A PATENT

AT110L THOMAS - Proctor
WE
June BLACK RIBBONof 111-115 BELEVRA Hill Road
MORNINGTON 3931 VICTORIA AUSTRALIA

hereby apply for the grant of a Patent for an invention entitled

EASY LAWN

which is described in the accompanying provisional specification.

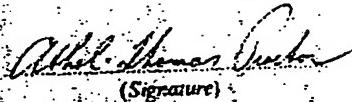
My address for service is 111-115 BELEVRA Hill Road Davies - Collingwood
Box 10000 Melbourne VIC 3000

MORNINGTON 3931 VICTORIA

Dated this 8th day of April 1975

To:

THE COMMISSIONER OF PATENTS

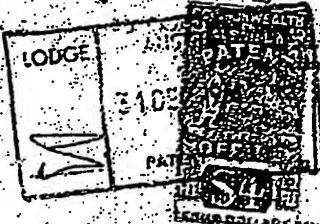

(Signature)

This form must be accompanied by either a provisional specification (Form 9 and true copy) or by a complete specification (Form 10 and true copy).

ATTACHED PATENT SPECIFICATION 61394/75

1245274-L

P.D. ANYSON Commercial Photo Camera



AUSTRALIAN PROVISIONAL SPECIFICATION NO. 81396/75

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COMMONWEALTH OF AUSTRALIA

Patents Act 1952-1973

Form 1

APPLICATION FOR A PATENT

ATHOL THOMAS TRAC TOR
(Use BLOCK letters)

111-113 BELLEVUE HILL ROAD

of MORNINGTON 3931 VICTORIA AUSTRALIA

hereby apply for the grant of a Patent for an invention entitled

EASY LAWN

which is described in the accompanying provisional complete specification

My address for service is 111-113 BELLEVUE HILL ROAD
Our

MORNINGTON 3931 VICTORIA

Dated this 23rd day of December 1974

RECEIVED	Date 31-12-74
Receipt No. PCT 61	
Application	
Declaration	
Specification	2D
Drawing	

To:

THE COMMISSIONER OF PATENTS

Athol Thomas Tractor
(Signature)

This form must be accompanied by either a provisional specification (Form 9 and true copy) or by a complete specification (Form 10 and true copy).

Cheque to value of \$1
Attached,
Mail Officer J.P.

AUSTRALIAN
31 DEC 1974
PATENT OFFICE

1245874-L

E.D. Attwells Government Printer, Canberra

**DECLARATION IN SUPPORT OF AN APPLICATION FOR A PATENT
OR PATENT OF ADDITION**

In support of the Application made by B. H. Thomas, F.R.C.S.

for a patent
patent of addition for an invention entitled

EASY-LAWN

I, B. H. L. THOMAS, Page 102
of 111-113 BEVERLY HILL ROAD, MORNINGTON, 3931, VICTORIA,
do solemnly and sincerely declare as follows.—

1. I am the applicant for the patent
or, in the case of an application by a body corporate, patent or addition

1. I am authorized by _____
the applicant for the patent
or, in the case of an application by a body corporate, patent or addition to make this declaration on
its behalf.

2. I am the actual inventor of the invention.
(or, where a person other than the inventor is the applicant)

2. Arthur Thomas Vincent
of 111, 113 Belgrave Hill Road, MORNINGTON,
VIC 3161, 3911, is the actual inventor of the invention
and the facts upon which I am entitled the is entitled to make the
application are as follows:

Declared at MORNINGTON this 23rd day of December 1974

To: THE COMMISSIONER OF PATENTS

W. H. Thomas, Jr.
(Signature of Declarant)

(IMPORTANT) — Cross out inapplicable words in the above Form.

AUSTRALIA

3185-3

1.2.3.4.5.6.7.8.9.10.

CONVENTION
OR
NON-CONVENTION

FORMS 7 AND 8
(COMBINED)

COMMONWEALTH OF AUSTRALIA

PATENTS ACT 1952-1969

DECLARATION IN SUPPORT OF CONVENTION OR
NON-CONVENTION APPLICATION FOR A
PATENT OR PATENT OF ADDITION

(The declaration shall be made by the applicant, or, if the applicant is a body corporate, by a person authorized by the body corporate to make the declaration on its behalf).

In support of the Application made for a ~~patent~~ ~~patent of addition~~ for an invention entitled
"EASY-LAWN" filed on 16th April, 1975 under
No. PC 1250/75

Insert title of invention.

Insert full name(s) and address(es)
of declarant(s).

1. **ATHOL THOMAS PROCTOR**, of
2. 111-113 Eleura Hill Road,
Mornington, Victoria 3931

Delete the words which are not
applicable.

Insert full name of applicant Com-
pany.

Delete the words which are not
applicable.

Insert full name(s) and address(es)
of actual inventor(s).

State names in which applicant(s)
derive title from actual inventor(s).

Insert country and date of filing
of each application on which prior-
ity is based.

Insert full name of applicant in
each basic application.

Signature(s) of declarant(s).

(No attestation or other signature
is required).

Note: Initial all Alterations.

TO:

The Commissioner of Patents

COMMONWEALTH
OF
21 MAY 1975
PATENT OFFICE

do solemnly and sincerely declare as follows:-

1. (a) I am the applicant for the ~~patent~~ ~~patent of addition~~
or (b) I am authorized by

the reason for making this declaration ~~is~~ ~~to make the declaration on behalf of~~ ~~its~~ ~~agent~~

2. (a) I am the actual inventor of the invention
or (b)

the actual inventor(s) of the invention and do so in accordance with the applicable
law.

I declare that the application is as follows:-

(Paragraphs 3 and 4 apply only to Convention applications)

3. The basic application as defined by Section 141 of the Act was made
in..... on the.....

by..... on the.....

by.....

4. The basic application referred to in paragraph 3 of this Declaration was
the first application made in a Convention country in respect of the invention the subject
of the application.

Declared at Melbourne this 19th day of May 1975

A. T. Proctor

COMMONWEALTH of AUSTRALIA
PATENTS ACT 1952-1959

COMPLETE SPECIFICATION

(Original)

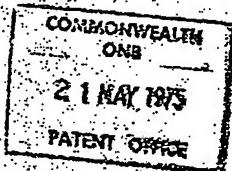
FOR OFFICE USE:

Class Int. Class

Application Number:
Lodged:Complete Specification Lodged:
Accepted:
Published:

Priority:

Related Art:



Name of Applicant: ATHOL THOMAS PROCTOR

Address of Applicant: 111-113 Belgrave Hill Road,
Mornington, Victoria 3931

Actual Inventor(s): ATHOL THOMAS PROCTOR

Address for Service: DAVIES & COLLISON, Patent Attorneys,
Cromwell Building, 374 Bourke Street, Melbourne, 3000

Complete Specification for the invention entitled, "SEED BEARING MAT"

The following statement is a full description of this invention, including the best method of performing it known to

This invention relates to a seed bearing mat particularly, but not exclusively, for use in preparing lawns.

According to the present invention there is provided a seed bearing mat comprising a layer of water permeable material and seeds bonded within or to said layer. It is preferred that water permeable material comprises straw bonded into a compressed layer by a bonding agent and that a bonding agent keeps the seeds bonded to the layer. A mat of this construction is relatively physically robust and is therefore better able to withstand the damaging effects of wind and rain.

The invention also provides a method of making a seed bearing mat comprising forming a layer of water permeable material and bonding seeds within or onto said layer.

The invention further provides a method of sowing a crop comprising laying a layer of water permeable, porous material having seeds adhered thereto upon the ground and applying water to the layer so that the layer becomes saturated with water and which, thereafter, tends to remain fixed in position relative to the ground.

The invention will now be described with reference to the accompanying drawing which shows a cross section through a portion of a mat constructed in accordance with the invention.

The mat shown in the drawing comprises layer 2 of flexible porous material such as compressed straw held in a compressed state by a bonding agent such as rubber latex. Straw is the preferred material but it is by no means

essential since other organic or inorganic material can be used. For instance, coconut fibres, peat moss, wood shavings or other organic particulate or fibrous material could be employed. In use of the mat, the layer 2 becomes saturated with water and tends to keep the mat in a fixed position relative to the ground. Further, where the layer 2 is made from organic fibrous or particulate material it serves as a layer of mulch which will gradually decompose. Bonded to the layer 2 is a covering layer 4 made from material which is of finer texture than that of the layer 2. For instance, coconut fibre dust or sawdust bonded together by latex would be most suitable. Seeds (not shown in the drawing) are bonded between the layers 2 and 4. The layers 2 and 4 need not be made from organic materials, for instance, particulate foamed plastic material or foam rubber would be suitable. It is preferred that the bonding agent used for binding the layers 2 and 4 together and for bonding seeds between the layers comprises latex since this tends to gradually break down when wet. The mat is preferably made so that the layer 2 is approximately 5 to 10 mm thick and the layer 4, 2 or 3 mm thick. It is preferred that the mat be made in long lengths say 1 metre wide so that it can be handled and laid much the same way as carpet.

One method of making the mat will now be described. First, straw is spread into trays say 1 metre wide and of convenient length say up to about 10 metres. The straw is initially uncompressed and is laid to a depth of approximately 5 cm. The layer of straw is then sprayed with contact adhesive such as a solution of 70% latex and 30% water.

The adhesive is sprayed at the rate of about 160 cc per square metre. The layer of straw is then inverted and the other side is sprayed with latex at the same concentration rate. The layer of straw having contact
5 adhesive applied thereto is fed through the nip of a pair of rollers so as to form a relatively compact porous layer.

Next, the compact layer of straw is again sprayed with latex, at the same rate, and seeds are then distributed
10 onto the layer. Where lawn seed is required, a typical seed distribution rate would be approximately 700 grams per square metre. At this stage, it is preferable to distribute a fungicide to prevent fungus attacking the seed. A suitable fungicide is sulphur dust. Further, a plant hormone such
15 as A. Naphthaleneacetic acid can be sprayed over the seeds. The acid may be in water solution at the rate of 0.001%. This hormone additive has the beneficial effect of promoting the elongation of the roots of the seeds after germination. Urea in liquid form, can also be applied at this stage.
20 The urea tends to help break down the covering layer 4 when the mat is wet (where the layer 4 is made from organic material).

Next, the material to form the covering 4 is applied to the layer 1 initially at a depth of 5 mm. The preferred material is coconut fibre dust since it is organic in nature, inexpensive, and of suitably fine texture. The mat is again fed through the nip of a pair of rollers so as to compress the covering layer and firmly bond the seeds between the layers. A composting agent such as "LIVING SOIL" can be applied to
25 30 the mat if desired. The composing agent will facilitate

breakdown of the layer of straw after germination of the seeds.

The completed mat can be rolled and stored in readiness for use. The mat will last for as long as 5 the life of the seeds, and in this respect, it is preferred to keep the mats in a cool store at 10°C to prolong the life of the seeds.

In use the mat of the invention is laid upon prepared ground which has been watered. After laying of 10 the mat it is heavily watered so that the layer 2 becomes saturated, therefore tends to remain in position despite the slope of the land. The mat has sufficient physical strength to withstand the effects of heavy hose watering. There is little possibility of seeds being washed away or taken by pests since they are bonded to the layer 2 and, in the preferred form, covered by the layer 4. The definite bonding of the seeds to the mat ensures that seeds cannot move prior to germination and thus the crop 15 will grow in a uniform manner.

20 Many modifications will be apparent to those skilled in the art without departing from the spirit and scope of the invention.

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The claims defining the invention are as follows:-

1. A seed bearing mat comprising a layer of water absorbant material and seeds bonded within or to said layer.
2. A mat as claimed in claim 1 wherein said layer comprises fibrous material bonded into a porous layer by a bonding agent.
3. A mat as claimed in claim 2 wherein said seeds are bonded within or to said fibrous material by said bonding agent.
4. A mat as claimed in claim 2 or 3 wherein the fibrous material comprises straw and the bonding agent comprises latex.
5. A mat as claimed in claim 4 wherein the seeds are bonded to the surface of the layer of straw and are covered by a further layer which is less porous than the straw layer and serves as a top cover for the mat.
6. A mat as claimed in claim 5 wherein the further layer comprises coconut fibre or coconut fibre dust bonded together into a layer and to the layer of straw by latex.
7. A mat as claimed in anyone of the preceding claims containing any one or combination of the following additives:- fungicide, fertilizer, urea, hormone additive,

and composting agent.

6. A mat as claimed in claim 7 wherein the fungicide comprises sulphur.

9. A mat as claimed in claim 7 or 8 wherein the hormone additive comprises Naphthaleneacetic acid.

10. A method of making a seed bearing mat comprising forming a layer of water absorbent material and bonding seeds within or onto said layer.

11. A method as claimed in claim 10 wherein the water absorbent material comprises straw which is sprayed with latex and compressed to form said layer.

12. A method as claimed in claim 11 wherein further latex is applied to the layer of compressed straw and seeds are distributed over the layer to bond them onto the layer.

13. A method as claimed in claim 12 wherein a layer of fibrous or particulate material is applied to the layer of straw to form a covering over the seeds.

14. A method as claimed in any one of claims 10 to 13 including the step of adding one or more of the following to the mat: urea, fungicide, fertilizer, hormone additive and composting agent.

15. A method of making a seed bearing mat comprising the steps of: forming a first layer of fibrous or particulate material, applying contact adhesive to the material, compressing the material to form a mat, applying further contact adhesive to the mat, applying seeds to the surface of the mat, forming a second layer on said mat of fibrous or particulate material of finer texture than said first mentioned fibrous or particulate material; and compressing the second layer to form a covering layer for the seeds.

16. A method as claimed in claim 15 wherein the first layer comprises straw initially approximately 3° thick and the second layer comprises coconut fibres or coconut fibre dust.

17. A method as claimed in claims 15 or 16 wherein the contact adhesive comprises water based latex applied at the rate of approximately 160 cc per square metre for both applications.

18. A method of sowing a crop comprising laying upon the ground a layer of water absorbent, porous material having seeds adhered thereto and applying water to the layer so that the layer becomes saturated with water and which, thereafter, tends to remain fixed in position relative to the ground.

19. A method of making a seed bearing mat substantially as hereinbefore described with reference

to the accompanying drawings.

20. A seed bearing mat substantially as hereinbefore described with reference to the accompany drawings.

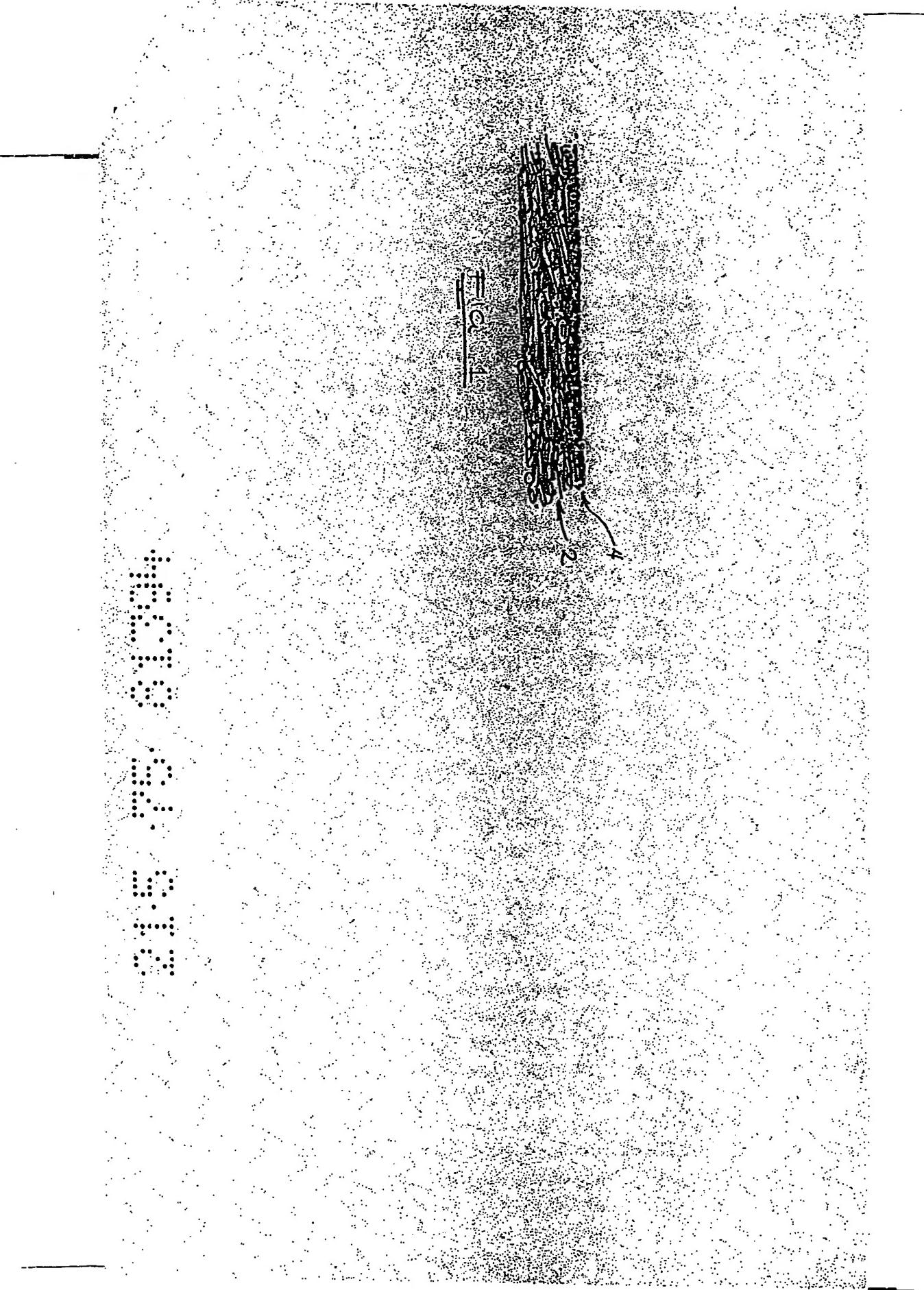
21. The steps, features, compositions and compounds referred to or indicated in the specification and/or claims and/or drawings of this application, individually or collectively, and any and all combinations of any two or more of said steps or features.

Dated this 19th day of May 1975.

ATHOL THOMAS PROCTOR

By his Patent Attorneys

DAVIES & COLLISON



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